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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,149	11/24/2003	Wolfgang Wiedmann	033832-008	7953

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EXAMINER	
LE, TUAN H	
ART UNIT	PAPER NUMBER
2622	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/722,149	WIEDMANN, WOLFGANG	
	Examiner	Art Unit	
	Tuan H. Le	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102 (b) as being anticipated by Sendall et al (U.S. Pat. 4,975,864).

Regarding claim 1, Sandall et al discloses a method for producing homogenized image data of a scene, wherein the scene is scanned with a detector which has a multiplicity of sensor elements for producing image signals, (see Sendal et al, Fig. 1 and column 4 lines 59-68),an overall value is formed for each of the sensor elements, which overall value represents a totality of image signals obtained from one of the sensor elements, so that an overall value profile is obtained at least over a part of the scanned scene, (see Sendal et al, column 5 lines 1-16), the overall values for adjacent sensor elements are used to determine whether differences between these overall values satisfy a predetermined magnitude criterion which indicates inhomogeneities in signal sensitivities of these sensor elements, (see Sendal et al, column 5 lines 25-29), if the magnitude criterion is satisfied, the image signals are corrected such that the magnitude

criterion is no longer satisfied, (see Sendal et al, column 5 lines 30-35 and lines 52-56), and the image data is produced from the corrected image signals or from the image signals which do not satisfy the magnitude criterion, (see Sendal et al, Fig. 2, wherein corrected image signals become compensated focal plane array (FPA) data).

Regarding claim 2, Sandall et al discloses a first correction of the image signals is carried out for correction of the signal sensitivities, (see Sendal et al, Fig. 2 and column 5 lines 1-3, wherein multiplier 12 is used for correction of signal sensitivities), and predetermined correction values, which are associated with the sensor elements, are used for this purpose, (see Sendal et al, Fig. 2, gain compensation values are stored in gain term memory 13), wherein the magnitude criterion, (see Sendal et al, Fig. 2 and column 5 lines 25-29, comparator 22 contains a preset level indicative of anticipated scene intensity), is applied after the first correction, wherein at least one further correction value (see Sendal et al, Fig. 2, offset value is stored in offset term memory 17), which is associated with a sensor element, is determined if the magnitude criterion is satisfied, and wherein a second correction is carried out using the at least one further correction value, such that the magnitude criterion is no longer satisfied, (see Sendal et al, Fig. 2, second correction is carried by summing circuit 12).

Regarding claim 3, Sandall et al discloses a process of determining whether the magnitude criterion is satisfied includes a check as to whether the overall value of a specific sensor element is an extreme in the vicinity of the sensor element, (see Sendall et al, column 5 lines 30-35, wherein a input signal is assigned positive or negative sign with reference to the preset level).

Regarding claim 4, Sandall et al discloses processes of determining whether the magnitude criterion, (see Sendall et al, Fig. 4, preset reference) is satisfied include a check as to whether any difference between the overall value of a specific sensor element and the overall value of an adjacent sensor element is greater than a predetermined limit value or is greater than a limit value which is determined from a predetermined value and from the overall value profile, (see Sendall et al, Fig. 4, adjacent element is reached by moving window to next element).

Regarding claim 5, Sandall et al discloses that if the magnitude criterion is satisfied, it is checked as to whether a measure for a totality of possible correction values for correction of the image signals differs from zero or from a measure for a totality of other correction values by more than a predetermined amount, (it is inherent to check if possible correction values are different from zero so that correction value increases/decreases signal intensity).

Regarding claim 6, Sandall et al discloses an apparatus for producing homogenized image data of a scene, having: a detector for scanning the scene, which detector has a multiplicity of sensor elements for producing image signals, (see Sendall et al, Fig. 1 and column 4 lines 59-68, wherein a focal plane array is used), a unit for forming overall values, (see Sendall et al, Fig. 2, summing circuit 12, multiplier 14 and A/D 15), which is configured such that it forms an overall value for each of the sensor elements which overall value represents a totality of image signals obtained from the sensor element, such that an overall value profile is obtained over at least a part of the scanned scene, a unit for checking a magnitude criterion, (see Sendall et al, Fig. 2,

comparator 22), wherein the unit is configured such that it uses the overall values of adjacent sensor elements to determine whether differences between these overall values satisfy a predetermined magnitude criterion which indicates inhomogeneities in signal sensitivities of these sensor elements, a unit for correction of the image signals , (see Sendall et al, Fig. 2, summing circuit 12 and multiplier 14), wherein the unit is configured such that, when the magnitude criterion is satisfied, it corrects the image signals such that the magnitude criterion is no longer satisfied, and a unit for producing the image data , (see Sendall et al, Fig. 2, analog FPA output and compensated FPA data), which unit is configured such that it produces the image data from the corrected image signals or from the image signals which do not satisfy the magnitude criterion.

Regarding claim 7, Sandall et al discloses that the apparatus has a memory device for storing a first set of correction values for correction of the image signals, (see Sendall et al, Fig. 2, gain values are stored in gain term memory 13), and has a unit, (see Sendall et al, Fig. 2, median filter 16, anti-median calculator 21, comparator 22, multiplexer 23, and increment/decrement 27) for determining at least one second correction value (offset values) in order to change the first set of correction values.

Regarding claim 8, Sandall et al discloses that the apparatus has a second memory device for storing a third set of correction values, and wherein the apparatus can be controlled such that the third set of correction values can be transferred to the first memory device, (see Sendall et al, Fig. 2, control 25 and latch 26).

Regarding claim 9, Sandall et al discloses a scanner having an apparatus according to one of claims 6 to 8, wherein the scanner has a unit for displaying the

image data produced by the apparatus, (see Sendall et al, Figure 1, analog video FPA output is used; it is inherent that a video processor can scan a FPA and display image data).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

White et al (U.S. Pat. 5,721,427) discloses a non-uniformity correction processor adapted for use with a focal plane array of detectors, wherein non-uniformity correction terms are generated and applied to signals from detectors.

Chen et al (U.S. Pat. 6,211,515) discloses an adaptive non-uniform compensation using feedforward shunting and wavelet filter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Le whose telephone number is (571) 270-1130. The examiner can normally be reached on M-Th 7:30-5:00 F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tuan Le
February 5, 2007

DAVID OMETZ
SUPERVISORY PATENT EXAMINER